CHAPTER 10

10.0 AMENDMENTS TO *SAN FRANCISCO BASIN PLAN*, *SAN FRANCISCO BAY PLAN*, AND BCDC'S IMPLEMENTING REGULATIONS

10.1 INTRODUCTION

This chapter presents the proposed amendments to the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) and the *San Francisco Bay Plan* (Bay Plan) for the San Francisco Bay Conservation and Development Commission (BCDC). These plans provide the policy framework for the planning and regulatory activities of these two agencies. The proposed amendments are intended to support implementation of the LTMS goals of maximizing the reuse of dredged material as a resource and reduction of in-Bay disposal of dredged material. These amendments propose a voluntary allocation program for in-Bay disposal volumes, with mandatory allocation implemented only if voluntary efforts are not successful, based on a proposed gradual reduction of in-Bay disposal volumes toward 1 million cubic yards (mcy) per year.

The proposed amendments are required to support the implementation of the LTMS goals, as defined in the LTMS Management Plan (Management Plan), and to provide an overview of this information to the public that is unfamiliar with LTMS process and goals.

The proposed amendments will be required to go through a formal public review process that includes approval by the SFBRWQCB and BCDC, review of the proposed Basin Plan amendments by the State Board, and legal review by the California Office of Administrative Law (OAL). Additionally, the scientific aspects of the policy for the Basin Plan will require an external peer review and may require final approval by the U.S. Environmental Protection Agency (USEPA), and the Bay Plan policies will need to be approved by the federal Office of Coastal Zone Management prior to becoming a part of BCDC's federally approved Coastal Management Program. Each agency will need to complete its respective review process before the policies can be used in regulatory decisions.

The amendments are generally similar in intent, although the format and form is unique to each plan. The amendments to the Bay Plan are accompanied by changes to the BCDC's regulations. Changes to the Basin Plan are contained in several chapters in the Basin Plan including Chapter 4, Implementation and Chapter 5, Plans and Policies. The focus of these changes is different since the two agencies have different, but complementary, mandates. The proposed amendments to the Bay Plan are focused on the process for regulating dredging and disposal activities within BCDC's jurisdiction. The proposed amendments to the Basin Plan are focused on regulating the known and potential impacts to water quality and beneficial uses of those waters by disposal activities.

10.2 SAN FRANCISCO BAY PLAN AMENDMENTS

10.2.1 Findings Concerning Dredging in the Bay

a. Much of the Bay bottom is shallow— averaging 20 feet in depth— and the bottom is covered with accumulated silt, sand, and clay. An estimated eight million cubic yards (mcy) of sediment is carried into the Bay annually from tributaries, most of it settling to the Bay bottom. In addition, over 100 mcy of sediment is recirculated in Bay waters each year, some of which lodges in harbors and is recirculated in Bay waters each year, some of which lodges in harbors and navigable channels from which it must be dredged at considerable cost.

b. Dredging consists of excavating or extracting materials from the Bay. Dredging is often necessary to provide and maintain safe navigation channels and harbors for port facilities, water-related industries, and recreational boating, and for flood control channels. Dredging of unstable Bay muds may also be needed to accommodate Bay fill projects. Dredging projects remove existing bottom habitat and can disrupt surrounding areas through turbidity and other impacts.

c. Some waste disposal practices have deposited pollutants into the Bay, some of which have contaminated Bay sediments. These pollutants are not distributed evenly in the Bay and some areas are highly contaminated. Dredging and subsequent disposal of contaminated sediments in the Bay may adversely affect Bay organisms.

d. In the past, material dredged from the Bay was disposed throughout the Bay. In more recent times, most disposal has occurred at one of four Bay disposal sites designated by the U.S. Army Corps of Engineers, the Regional Board, and the Commission where the material can disperse and cause the least environmental impacts as possible. These sites are: (1) off Alcatraz Island; (2) in San Pablo Bay; (3) in the Carquinez Strait; and (4) in the Suisun Bay Channel. At the site nearest the ocean, next to Alcatraz Island, less than half of the disposed material is carried out to sea by the tides.

e. Capacity at the disposal site near Alcatraz Island is limited, because a large mound of dredged material has formed which, unless disposal is properly managed, may adversely affect water circulation and Bay aquatic life, pose a hazard to maritime navigation, and completely fill the site. The impact of dredged material disposal activities on Bay natural resources, which are under stress from a variety of sources, remains controversial.

f. In 1994, the U.S. Environmental Protection Agency designated the "Deep Ocean Disposal Site," which is fifty miles outside of the Golden Gate. The EPA manages the site and has set a yearly capacity of 4.8 mcy.

g. Most dredged material can be reused rather than treated as a waste. The material can be used to bolster levees and dikes, to create and restore marshes and wetlands, to cover and seal sanitary landfills, and as fill in construction projects.

h. In the past, only small amounts of dredged material have been disposed at upland and diked baylands sites around the Bay. Fortunately, more reuse options are becoming available for dredged material disposal. These sites include Hamilton Wetlands Project in Marin County with a capacity of over 10 million cubic yards and the Montezuma Wetlands Project in Solano County with a capacity of 17 million cubic yards. Inclusion of the adjacent Bel Marin Keys parcel would likely more than double the capacity of the Hamilton project. Dredged material from both deepening and maintenance dredging projects could be used at these sites to restore thousands of acres of wetlands. However, diked bayland sites can support existing seasonal wetlands and provide other important habitat functions that should be taken into account as part of dredged material reuse projects.

i. Shoreline facilities are needed to dry and prepare dredged material for some upland uses. These sites are particularly important for material with levels of contaminants that cannot be disposed in the Bay, but can be used as capping, lining and cover in solid waste landfills.

j. Dredged material may be used to restore or enhance Bay habitats, but such projects can also adversely impact existing Bay resources and reduce the surface area and volume of the Bay.

k. The San Francisco Bay Regional Water Quality Control Board and the U.S. Environmental Protection Agency are responsible for determining appropriate dredged material pollutant testing and discharge standards and for assuring that dredging and disposal of dredged materials are consistent with the maintenance of Bay water quality. The U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers have joint federal responsibility for regulating ocean, Bay, and wetland disposal.

l. The California Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service are responsible for management and protection of Bay organisms, particularly threatened and endangered species.

m. The Long Term Management Strategy (LTMS) program, initiated by the U.S. Army Corps of Engineers in 1991, in partnership with the Commission, the San Francisco Bay Regional Water Quality Board, the State Water Resources Control Board, and the U.S. Environmental Protection Agency, with the involvement of dredgers, fisherman, environmentalists and other interested parties, has comprehensively studied Bay dredging issues and prepared a long-range Bay dredging and dredged material disposal management plan and implementation program. The LTMS provides the basis for uniform federal and state dredged material disposal policies and regulations.

n. The LTMS has set goals to reduce in-Bay disposal over the next decade to 1 million cubic yards or less per year and making maximum use of dredged material as a resource.

o. Using dredged material as a resource is usually more expensive than existing disposal practices. Large reuse sites can attain economies of scale and increase feasibility of reuse. Concerted efforts are needed to plan, fund and implement reuse of dredged material. The ongoing efforts by government agencies, dredgers, environmentalists and others have made

great progress and should achieve the LTMS goals. However, if these efforts are not successful, in-Bay disposal may have to be restricted.

p. The U.S. Army Corps of Engineers is the largest Bay dredger and has the greatest ability to implement alternative disposal options. Annually, small dredgers account for less than one quarter of a million cubic yards of material and have the least ability to implement alternatives to in-Bay disposal.

q. As part of the LTMS, a Dredged Material Management Office (DMMO) has been established to consolidate the processing of dredging permit applications by the staff of the LTMS agencies and the State Lands Commission. The DMMO provides a single application form and unified processing of applications for dredging permits.

r. Underground fresh water supplies are an important supplement to surface water now brought into the Bay Area by aqueduct from mountain reservoirs. Deep dredging of Bay mud, or excavation for tunnels or bridge piers, could strip the "cover" from the top of a fresh water reservoir under the Bay, allowing the salt water to contaminate the fresh water, or allowing the fresh water (if artesian) to escape in large quantities and thus cause land to sink. The precise location of groundwater reservoirs under the Bay is not yet well known, however.

s. Better information on Bay sediment dynamics is needed to (1) better determine the impacts of dredging and disposal projects and (2) identify long-term trends in Bay sedimentation that relate to dredging needs and potential impacts to Bay resources, such as wetland and mudflats.

10.2.2 Bay Plan Dredging Policies

1. Dredging and dredged material disposal should be conducted in an environmentally and economically sound manner. Dredgers should reduce disposal in the Bay over time to achieve the LTMS goal of limiting in-Bay disposal volumes to a maximum of one million cubic yards, per year. The LTMS agencies should implement a system of disposal allotments to individual dredgers to achieve this goal only if voluntary efforts are not effective in reaching the LTMS goal. Small dredgers should be exempted from allotments, but all dredgers should comply with policies 2 through 12.

2. Dredging should be authorized when the Commission can find: (a) the applicant has demonstrated that the dredging is needed to serve a water-oriented use or other important public purpose; (b) the materials to be dredged meet the water quality requirements of the San Francisco Bay Regional Water Quality Control Board; (c) important fisheries and Bay natural resources would be protected through seasonal closures established by the California Department of Fish and Game, the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service, or through other appropriate measures; (d) the siting and design of the project will result in the minimum dredging volume necessary for the project; and (e) the materials would be disposed of in accordance with Policy 3.

3. Dredged materials should, if feasible, be reused or disposed outside the Commission's Bay and certain waterway jurisdictions. Disposal in these jurisdictions should be authorized for projects where disposal outside the Commission's Bay and certain waterway jurisdiction is infeasible and where the dredged material will not be used in approved fill projects, only when the Commission makes all the following findings: (a) the volume to be disposed is consistent with applicable dredger disposal allocations and disposal site limits adopted by the Commission by regulation; (b) disposal would be at a site designated by the Commission; (c) the quality of the material disposed of is consistent with the advice of the San Francisco Bay Regional Water Quality Control Board and the inter-agency Dredged Material Management Office (DMMO); and (d) the period of disposal is consistent with the advice of the California Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

4. If an applicant proposes to dispose dredged material in tidal areas of the Bay that exceeds either disposal site limits or any disposal allocation that the Commission has adopted by regulation, the applicant must demonstrate that the potential for environmental harm is minimal and that non-tidal and ocean disposal is infeasible because there are no alternative sites available or likely to be available in a reasonable period, or because the cost of disposal at alternate sites is prohibitive. In making its decision whether to authorize such in-Bay disposal, the Commission should confer with the LTMS agencies and consider the need for the dredging and the dredging project, environmental impacts, regional economic impacts, efforts by the dredging community to implement and fund alternatives to in-Bay disposal, and other relevant factors.

5. To ensure adequate capacity for necessary Bay dredging projects and to protect Bay natural resources, acceptable nontidal disposal sites should be secured and the Deep Ocean Disposal Site should be maintained. Further, dredging projects should maximize use of dredged material as a resource, such as creating, enhancing, or restoring tidal and managed wetlands, creating and maintaining levees and dikes, providing cover and sealing material for sanitary landfills, and filling at approved construction projects.

6. Dredged materials disposed in the Bay, particularly at the Alcatraz Island disposal site, should be carefully managed to ensure that the amount and timing of disposal does not create navigational hazards, adversely affect Bay currents or natural resources of the Bay, or foreclose the use of the site for projects critical to the economy of the Bay Area.

7. All proposed channels should be carefully designed so as not to undermine the stability of any adjacent dikes, fills or fish and wildlife habitats.

8. The Commission should encourage increased efforts by soil conservation districts and public works agencies in the 50,000-square-mile Bay tributary area to continuously reduce soil erosion as much as possible.

9. To protect underground fresh water reservoirs (aquifers): (a) all proposals for dredging or construction of work that could penetrate the mud "cover" should be reviewed by the San Francisco Bay Regional Water Quality Control Board and the State Department of Water

Resources; and (b) dredging or construction work should not be permitted that might reasonably be expected to damage an underground water reservoir. Applicants for permission to dredge should provide additional data on groundwater conditions in the area of construction to the extent necessary and reasonable in relation to the proposed project.

10. Interested agencies and parties are encouraged to explore and find funding solutions for the additional costs incurred by transporting dredged materials to nontidal and ocean disposal sites, either by general funds contributed by ports and other relevant parties, dredging applicants or otherwise.

11. A project that uses dredged material to create, restore or enhance Bay natural resources should be approved only if:

    a) The Commission determines, based on detailed site-specific technical studies appropriate to the size and potential impacts of the project and consistent with the advice of the California Department of Fish and Game, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service, that: (1) the project would, in relationship to the project size, substantially improve habitat for Bay species; (2) no feasible alternatives to the fill exist to achieve the project purpose with fewer adverse impacts to Bay resources; (3) the amount of dredged material to be used is the minimum amount necessary to achieve the purpose of the project; (4) beneficial uses of the Bay and Bay water quality will be protected; and (5) there is a high certainty that the project will be successful and not result in significant environmental harm.

    b) The project includes an adequate monitoring and management plan and has been carefully planned, and the Commission has established measurable performance objectives and controls that will ensure the success and permanence of the project.

    c) The project is either a small pilot project or the success of similar projects has been demonstrated in similar environmental settings.

    d) The project will use only clean material suitable for aquatic disposal and will not result in a net loss of Bay surface area or volume.

    e) Fill will not be placed in areas with particularly high existing natural resource values, such as eelgrass beds and tidal marsh and mudflats, unless the fill is needed to protect or enhance the habitat.

    f) If, after a reasonable period of monitoring, either (a) the fill project has not met its goals and measurable objectives, and attempts at remediation have proven unsuccessful, or (b) the fill is found to have substantial adverse impacts on the natural resources of the Bay, the fill should be removed and the site returned to the conditions existing immediately preceding placement of the fill, unless it is demonstrated by competent environmental studies that removing the fill would have a greater adverse effect on the Bay than allowing it to remain.

12. The Commission should continue to participate in the LTMS, the Dredged Material Management Office, and other initiatives conducting research on Bay sediment movement, the effects of dredging and disposal on Bay natural resources, alternatives to Bay aquatic disposal, and funding additional costs of transporting dredged materials to non-tidal and ocean disposal sites.

10.2.3 Marshes and Mudflats Policy No. 3

"To offset possible additional losses of marshes due to necessary filling and to augment the present marshes…in areas selected on the basis of competent ecological study, some new marshes should be created through carefully placed lifts of dredged spoils."

10.2.4 Water-related Industry Finding a.

Certain industries, including dredged material rehandling facilities, require a waterfront location on navigable, deep water to receive raw materials and distribute finished products by ship, thereby gaining a significant cost advantage. These industries are defined as water-related industries.

10.2.5 Bay Plan Maps

Map No.1

- Bel Marin Keys: add note regarding possible use as a wetland restoration/reuse site using dredged material.
- Skaggs Island: add note regarding possible use as a wetland restoration reuse site using dredged material.
- North Point Property: add note regarding possible use as a wetland restoration reuse site using dredged material.
- Port Sonoma Marina: add note regarding rehandling facility option.
- Redwood Landfill: add note regarding dredged material reuse for capping, lining and daily cover.
- San Pablo Bay disposal site: identify.
- Upper Petaluma River/Map Note E: identifies as possibly shallow draft port, delete due to dredging needs.
- HAF/Bay Plan Note A: identifies for possible new small boat channel (fronting HAF site), delete.

Map No. 2

- Wickland Selby: identify as possible dredged material rehandling site.
- Cargill Ponds (east): identify as possible dredged material rehandling site.
- Praxis Pacheco: identify as possible dredged material confined disposal site.
- Carquinez Strait disposal site: identify.
- Suisun Bay Channel disposal site: identify.

Map No. 4

- Alcatraz disposal site: identify.
- Bar Channel disposal site: identify.
- Middle Harbor: add note regarding possible dredged material reuse site for habitat enhancement (note: site also on Bay Plan Map No. 5).
- Port of Richmond: note regarding potential rehandling facility if not needed for a Port use.
- NAS Alameda: note regarding possible use for dredged material on-site.

Map No. 6

- Dredging of possible shoreline channel: delete due to need for excessive dredging.

10.3 BCDC IMPLEMENTING REGULATION CHANGES — DREDGING

Under the proposed LTMS Management Plan, the following would be added to Chapter Seven, Special Rules.

Article 4. Dredging

10720. Commission Procedure For Determining Whether or Not To Implement Individual In-Bay Dredged Material Allocations.

a) The Commission shall hold a public hearing to determine whether or not to implement an individual in-Bay dredged material allocation (1) within 60 days of the Executive Director's determination at the triennial reviews starting 2004 that the average annual total volume of dredged material disposed of over the preceding three-year period at all the in-Bay disposal sites designated by the Commission exceeds the target volume specified in Section 10721 or

(2) within 60 days of receipt of a written request to hold such a meeting from the Long Term Management Strategy Management Committee.

b) The Commission shall vote on whether or not to implement such a program within 60 days of the close of the public hearing.

c) The Commission shall implement a program of individual in-Bay dredged material disposal allocations unless a majority of those Commissioners present and voting vote not to implement the program.

d) The program will commence no later than six months after the Commission vote if the Commission vote results in a determination to implement an allocation program.

10721. Target Volumes.

a) The target volume for the calendar years of 2001-2003 is 3.05 million cubic yards.

b) The target volume for the calendar years of 2004-2006 is 2.628 million cubic yards.

c) The target volume for the calendar years of 2007-2010 is 2.205 million cubic yards.

d) The target volume for the calendar years of 2010-1013 is 1.78 million cubic yards.

e) The target volume for the calendar years thereafter is 1.361 cubic yards.

10722. Individual Disposal Allocations.

a) Commencing on January 1, 2001 and every three years thereafter, the

b) Executive Director shall determine an in-Bay dredged material disposal allocation for each dredging project sponsor.

c) The allocation shall be valid for a three-year period from January 1 following the date of determination and extending to the day that the Executive Director makes a new determination for the next three-year period.

d) The allocation shall be equal to the product of the average annual dredging volume as determined according to Section 10723 and of the step-down factor as designated in Section 10724.

10723. Average Annual Dredging Volumes.

The average annual dredging volume is defined as the average of the annual dredging volumes disposed by each dredging project sponsor during the eight calendar years 1991 through 1998. For dredging projects proposing Bay disposal that did not dispose in the Bay between 1991 and 1998 and that are otherwise consistent with the Commission's law and policies governing in-Bay

disposal, the Executive Director will determine an average annual dredging volume based upon the minimum average volume needed to maintain the approved channel, berthing areas, or other areas approved to be dredged.

10724. Allocation Step-Down Factor.

a) The step down factor for January 1, 2004 through December 31, 2006 is 0.861.

b) The step down factor for January 1,2007 through December 31, 2009 is 0.723.

c) The step down factor for January 1, 20010 through December 31, 2012 is 0.584.

d) The step down factor for January and thereafter is 0.446.

10725. Unused Allocation Banking.

Each dredging project sponsor may carry over the unused portion of an individual in-Bay disposal allocation from one three-year period to the next, and any disposal allocation carried over shall be in addition to the total individual allocation for that sponsor as determined by the Executive Director pursuant to Sections 10722, 10723, and 10724.

10726. Small Dredger Exception.

Small dredgers are exempt from the individual in-Bay dredged material disposal allocation process, but they must still fully comply with all other McAteer-Petris and San Francisco Bay Plan policies regarding dredging and the disposal of dredged material.

10727. Small Dredgers.

Small dredgers are defined to be project sponsors of dredging projects with a depth no deeper than –12 feet Mean Lower Low Water (not including over-depth dredging) and generating an average yearly volume as defined in Section 10723 of less than 50,000 cubic yards of material.

10728. Termination of Individual Dredged Material Disposal Allocations.

a) Within 60 days of either (1) a written determination by the Executive Director that the average annual volume of dredged material disposed of over the preceding triennial review period at all in-Bay disposal sites designated by the Commission no longer exceeds the target volumes specified in Section 7201 or (2) the Long Term Management Strategy Management Committee recommends ending allocations, the Commission will hold a public hearing to determine whether or not to end the imposition of individual dredged material disposal allocation.

b) Within 60 days of the close of the public hearing, the Commission will vote on whether or not to end the imposition of individual dredged material disposal allocations.

c) The Commission shall end the imposition of individual dredged material disposal allocations unless the Commission determines by a majority of those Commission members present and voting not to end the imposition of individual dredged material disposal allocations.

10729. Reimplementation of Individual Allocations For the In-Bay Disposal of Dredged Material.

After terminating the imposition of individual dredged material disposal allocations, the Commission can reimpose individual dredged material disposal allocations only if the conditions specified in Sections 10720 and 10721 exist and the Commission determines to impose the allocations pursuant to Section 10720.

10.4 BASIN PLAN AMENDMENTS

10.4.1 DREDGING AND DISPOSAL OF DREDGED SEDIMENT

10.4.1.1 BACKGROUND

Dredging and dredged sediment disposal in the San Francisco Bay Area is an ongoing activity because of continual shoaling that impedes navigation and other water-dependent activities. Large volumes of sediment are transported in the waters of the Sacramento and San Joaquin rivers, which drain the Central Valley. The average annual sediment load to the San Francisco Bay system from these two rivers is estimated to be eight million cubic yards. Of this amount, some four million cubic yards are transported out of the Bay through the Golden Gate. The remaining four million cubic yards are circulated and/or deposited in the Bay. In addition, some two-and-one-half million cubic yards are deposited into the Bay from local watersheds.

Dredging is generally necessary to maintain the beneficial use of navigation. The trend to increasingly large vessels also necessitates the need for increased channel depth in the navigation channels.

Disposal of the majority of dredged material from San Francisco Bay has historically been at designated disposal sites in San Francisco Bay. This practice dates back to at least the beginning of the 20th century. Currently there are three such multi-user disposal sites designated by the U.S. Army Corps of Engineers. A fourth site is maintained for Corps use exclusively for material from dredging of the Suisun Bay and New York Slough federal channels.

Annual maintenance dredging of shipping channels, harbors, and marinas in the San Francisco Bay results in disposal of between two and eight million cubic yards of dredged material at in-bay disposal sites. All aquatic dredged material disposal sites are operated as "dispersive" sites, that is, material disposed at the sites is intended to disperse and be carried by currents out to sea. Additionally, one of the management practices is to only allow material to be disposed of at disposal sites downstream of the dredging sites, with the objective of moving sediments away from dredging sites and out of the Bay. While the overall hydrodynamics of the Bay are not completely understood it is clear that the fate of material placed at in-bay disposal sites is dependent upon material type, disposal volume, and disposal frequency.

Since 1994, when the USEPA designated the Deep Ocean Disposal Site approximately 50 miles offshore of San Francisco, approximately 6 million cubic yards of dredged material have been disposed of there.

Dredged material has also been used as fill for wetland restoration projects, for levee maintenance, and as daily cover for landfills. Volumes for these, and other beneficial reuse projects, have totaled approximately 2 million cubic yards over the past 9 years.

10.4.1.2 REGULATORY FRAMEWORK

The Corps of Engineers issues federal permits for dredging projects pursuant to Section 404 of the Clean Water Act. The USEPA provides oversight of the Corps' regulatory program.

As a part of the Section 404 permitting process, the dredging permit applicant must seek water quality certification from the State of California, in accordance with Section 401 of the Clean Water Act. Currently the applicant must contact the Regional Board for 401 certification. The Regional Board reviews the proposed project, then may recommend to the Executive Director of the State Board that certification be granted or denied. Alternately, the Regional Board may choose to act under the authority of the state Porter Cologne Water Quality Control Act, by issuing or waiving waste discharge requirements for the project. From a Section 404 perspective, these actions are considered equivalent to waiving or issuing water quality certification, respectively.

Water quality certifications, waste discharge requirements, and waivers of waste discharge requirements often contain conditions to protect water resources that the permittee must meet during the term of the permit.

The Bay Conservation and Development Commission (BCDC) also regulates dredging and disposal under the provisions of the McAteer-Petris Act.

Projects involving the use of sovereign lands of the state may be subject to the lease or permitting requirements of the State Lands Commission.

10.4.1.3 LONG TERM MANAGEMENT STRATEGY

In the early 1980s, the problems associated with heavy reliance on in-Bay disposal sites became apparent, including navigational problems associated with the "mound" of dredged material at the Alcatraz disposal site, as well as potential environmental problems associated with disposal and dredging activities in general. These conditions led to the creation of the LTMS program out of which emerged the preferred alternative for managing dredging and disposal activities in the Bay Area over the next fifty years.

In 1990, the COE, EPA, BCDC, SFRWQCB, and SWRCB were joined by representatives from the dredging and environmental communities to create the LTMS for dredging and disposal in the San Francisco Bay Region. The primary focus of the LTMS is on the various dredged material disposal options and their related impacts. The LTMS goal is to ensure adequate dredged

material disposal and reuse capacity and protection of aquatic resources over its 50-year planning period. The LTMS was also initiated to maximize beneficial reuse of dredged material, improve coordination of the agencies governing these activities, and ensure a more predictable regulatory framework.

The LTMS examined several possible long-term dredge material management strategies. The Policy EIS/Programmatic EIR (EIS/R) for the program selected as the preferred alternative a reduction in the reliance of in-Bay disposal, this alternative choose "low" volume of in-Bay disposal, which is considered to be about 20% of current volume dredged material going to in-Bay sites)with an increased reliance on ocean disposal and beneficial reuse of dredged material (with the remaining 80% of material split evenly between these two options). The EIS/R was certified by the USACE and USEPA in July, 1999, and by the State Board in November, 1999, thus beginning the implementation of the preferred alternative.

During the preparation of the EIS/R, the LTMS agencies consulted with USFWS, NMFS, and CDFG regarding potential impacts of dredging and dredged material disposal to sensitive biological resources. These resource agencies, in conjunction with the LTMS agencies, developed a list of restrictions for such projects to protect critical habitat for special status and important commercial and recreational species. The LTMS agencies will consider these restrictions that were included in the EIS/R in issuing any permits.

The EIS/R for the LTMS identified the overall future disposal management strategy (i.e. reduced in-Bay disposal volumes at the designated dispersive sites). The LTMS Management Plan contains specific guidance that will be used to implement the preferred alternative by each of the LTMS agencies. The Management Plan will be reviewed and updated every three years to reflect changing statutory, regulatory, technical, or environmental conditions. The Basin Plan dredging policies will be updated, as necessary, in conjunction with Management Plan updates.

10.4.1.4 ENVIRONMENTAL IMPACTS OF DREDGING AND DISPOSAL IN THE AQUATIC ENVIRONMENT

During the late 1980s and continuing to the present, concern over the potential impacts of dredged sediment disposal in San Francisco Bay has increased substantially, forcing regulatory agencies to reexamine their dredging policies. The Regional Board, during its triennial review of the Basin Plan in 1986, stated its intention to update and revise its dredged sediment disposal policy for San Francisco Bay. During the triennial review, the Regional Board recognized that periodic dredging is necessary to maintain the beneficial use presented by navigation and other water-dependent activities. The Regional Board also stated its intention to institute a more rigorous testing program to determine the suitability of dredged sediment for unconfined aquatic disposal in San Francisco Bay.

Most dredging and dredge material disposal operations cause localized and ephemeral impacts with related biological consequences. In August 1980, the Regional Board adopted a general policy (Resolution No. 80-10) for the regulation of dredge sediment disposal. Many concerns have been raised about the adequacy of the Corps' regional procedures to identify potential pollution conditions. One area of concern is implicit in the guidelines and protocol for testing of

sediment for ocean disposal. The current ocean disposal criteria (pursuant to the Marine Protection, Research, and Sanctuaries Act) are more stringent than the inland criteria (governed under the Clean Water Act). In the 1980s, it was determined that the Alcatraz disposal site was accumulating significant amounts of material, with the depth of the site going from the original 110 feet to 30 feet. The mounding at the disposal site ultimately became a threat to navigation. The Corps eventually dredged the Alcatraz site to increase the depth, redistributing the material within the disposal area several times between 1984 and 1986.

In September of 1988, Regional Board staff circulated and presented an issue paper entitled "A Review of Issues and Policies Related to Dredge Spoil Disposal in San Francisco Bay." The issue paper discussed the major environmental concerns posed by dredged sediment disposal in San Francisco Bay, namely: 1) mounding at the Alcatraz disposal site, which posed a navigational hazard and has the potential to alter circulation patterns in the Bay; 2) the disposal of increasingly large amounts of material has the potential to alter benthic and shoreline habitats and to increase water column turbidity; and 3) the resuspension of dredged sediments may increase contaminant bioavailability. The issue paper presented a range of alternative strategies for the Regional Board to consider. Public and agency testimony was received by the Regional Board during hearings on September 15, 1988, and October 19, 1988. Agencies testifying included the Corps, U.S. EPA, and the California Department of Fish and Game. In the issue paper, Regional Board staff recommended that the Regional Board consider adopting quantity and quality limits for the disposal of dredged sediment at unconfined aquatic disposal sites within San Francisco Bay.

Additionally, the Regional Board and the Corps took steps to prevent further "mounding" at the region's single largest disposal site, the Alcatraz site. In 1989, the Regional Board adopted volume targets, which served to prevent overfilling of the region's three aquatic disposal sites. BCDC also revised its policies to restrict in-bay disposal. These volumes were reduced further for the Alcatraz disposal site (SF-11) in 1993 when the USACE issued Public Notice 93-3.

10.4.2 WETLAND RESTORATION USING DREDGED MATERIAL

While the Regional Board remains concerned about the impacts of both polluted and clean sediments on the San Francisco Estuary, much of the sediment disposed of in the region is not polluted and could be used in beneficial ways (termed "reuse"). One of these uses involves the restoration of tidal marshes in areas that were once part of the Bay. These areas, known as diked historic baylands, were once open to the tides and were thriving salt marsh and mudflat ecosystems (discussed further under the "Wetlands Protection and Management" section). Decades of land "reclamation," first initiated in the 1800s, resulted in diked agricultural lands, the land surface of which has subsided for a variety of reasons.

In order to foster growth of marsh vegetation and proper slough channel formation, the new marsh must be built near mean high tide. In many cases it will be beneficial to place a layer of sediment across the site to raise the elevation of the land surface to a point near the mean tide line. LTMS studies have examined the environmental, engineering, and economic considerations that are involved in restoring certain sites. The studies commissioned by LTMS have shown that, given current laws and policies, placement of dredged sediment at wetland restoration projects may cost more than traditional in-bay disposal, but less than ocean disposal.

10.4.2.1 SONOMA BAYLANDS

One example of this concept is the Sonoma Baylands Wetlands Demonstration Project. The Sonoma Baylands property, which was formerly used for hay production, was acquired by the Sonoma Land Trust for preservation as undeveloped open space. The Sonoma Baylands project was managed by the State Coastal Conservancy, which facilitated a partnership between the Corps and the Port of Oakland. Federal legislation was necessary to allow the Corps to direct the construction of the project. The Corps began filling the site with dredged sediment in the fall, 1995, with completion expected in late 1996. The 322-acre Sonoma Baylands site will require some two-and-a-half million cubic yards of sediment prior to contact with tidal waters. The Regional Board has issued a permit for the construction of Sonoma Baylands, regulating the placement of dredged sediment and runoff water from the site. Tidal marsh vegetation is expected to be established within five years of construction.

10.4.2.2 MONTEZUMA WETLANDS RESTORATION PROJECT

The Montezuma Wetlands Restoration Project is planned on an even larger scale. The Montezuma project site is located on the northern boundary of Suisun Bay at Collinsville. The site, which is adjacent to the Suisun Marsh reserve, is currently used for sheep ranching and commercial pheasant hunting. The Montezuma project involves restoration of approximately 1,800 acres of diked historic baylands to tidal action. Like the Sonoma Baylands site, dredged sediment would be placed at Montezuma in order to account for the heavy subsidence that has occurred at the site. In some areas, up to seven feet of sediment would be necessary to bring the site to a proper elevation for wetland creation. Because the Montezuma site has subsided so much, the quantity of material that potentially will be placed there is in the range of 20 million cubic yards. The Montezuma project has completed CEQA review and is in the process of obtaining the permits required for operation.

10.4.2.3 HAMILTON WETLANDS RESTORATION PROJECT

10.4.2.4 DELTA ISLAND LEVEE REPAIR AND MAINTENANCE

Winter Island, located in the western Delta, near Pittsburg, is operated as a duck club by the local Reclamation District. In 1998, the Reclamation District, in need of material to repair levees, partnered with the Corps of Engineers, and accepted over 200,000 cubic yards of sandy dredged material from the Corps' dredging of the federal Suisun Bay Channel. In 1999, an additional 225,000 cubic yards from the Suisun Bay Channel project was placed on the site, along with approximately 30,000 cubic yards of finer-grained material from the Port of San Francisco. The Reclamation District estimates that they will have a long-term need for fine-grained dredged material, of about 100,000 cubic yards per year.

Other Delta islands are also in need of material for levee repair. For example, the Corps is currently exploring the possibility of taking material from the Suisun Bay Channel to Sherman Island. Cooperation with the Department of Water Resources, the Central Valley Water Resource Control Board and the CalFed program may provide additional opportunities for reuse of dredge material in the future.

10.4.3 REGIONAL BOARD POLICIES ON DREDGING AND DREDGED SEDIMENT DISPOSAL

The overall policy for dredging and disposal of dredged sediment will include a reduction in in-bay disposal volumes and an increased emphasis on beneficial use of dredged material. Beneficial use is targeted on upland use in wetland restoration projects or levee maintenance and repair. Additional volume is available at the deep ocean disposal site designated by USEPA in 1998. The goal is to reduce in-bay disposal volumes to approximately 20% of recent historical volume, which is about 1 million cubic yards per year. General detail as to how this will proceed is as follows:

10.4.3.1 NEED FOR REGIONAL AND LOCAL MONITORING

Specific monitoring requirements will be fulfilled through two programs, first participation in the Regional Monitoring Program (RMP) which monitors the general health of the Bay and provides specific technical studies that inform policy decisions on required sediment testing (see below) and specific monitoring requirements at the designated disposal sites.

10.4.3.2 MATERIAL DISPOSAL RESTRICTION

Materials disposed of at approved aquatic dredged material disposal sites shall be restricted to dredged sediment. Disposal of rock, timber, general refuse, and other materials shall be prohibited. Additional specific requirements, regarding material type and dredging and disposal mechanism may be implemented as required based on ongoing site monitoring and adaptive management.

10.4.3.3 VOLUME TARGETS

Volume targets for each disposal site were developed based on understandings of sediment dynamics and historical information regarding disposal volumes (Table 4-15). An examination of disposal patterns at all aquatic disposal sites in San Francisco Bay revealed that the Carquinez Straits area may be influenced by wet weather events.

TABLE 4-15
DREDGED MATERIAL VOLUME TARGETS

ANNUAL The following volume targets shall be utilized each calendar year (i.e., January to December) at each aquatic disposal site.		
Alcatraz Island (SF-11)		4.0 million cubic yards
San Pablo Bay (SF-10),		0.5 million cubic yards
Carquinez Straits (SF-9)		2.0 million cubic yards (Normal Water Year) 3.0 million cubic yards (Wet Water Year)
MONTHLY The following volume targets shall be utilized on a monthly basis at each aquatic disposal site.		
Alcatraz Island (SF-11)	October-April	.40 million cubic yards
	May-September	0.3 million cubic yards
San Pablo Bay (SF-10) Any Month		0.5 million cubic yards
Carquinez Straits (SF-9) Any Month		1.0 million cubic yards

Volume targets will be reduced to match recent volumes. These allowable volumes will be further reduced to trend toward the goal of 1 million cubic yards of allowable disposal volume at the approved in-bay disposal sites. A voluntary program will be instituted with the majority of maintenance material from COE projects being used in wetland restoration projects. Should this voluntary program fail to provide progress toward the goal, as measured by an annual review of yearly volumes, a mandatory allocation program will be instituted. Institution of or recision of mandatory allocation will be automatic if the three average disposal volume exceeds the target volumes as identified in Table 4-16 unless after review by the Board in a Board hearing the Board votes to not require mandatory allocation. The mandatory allocation program will be instituted through the issuance of general Waste Discharge Requirements for each class of dredging project. The Board will also consider these general Waste Discharge Requirements for adoption.

TABLE 4-16
ANNUAL TARGET VOLUMES

YEAR	Target Volume
2001-2003	3.05 million cubic yards
2004-2006	2.628 million cubic yards
2007-2010	2.205 million cubic yards
2010-2013	1.78 million cubic yards
After 2013	1.361 cubic yards

In addition to this total volume:

a) Material from small dredging projects (see below) may not be considered in this total volume and will, in general be exempt from restrictions on in-Bay disposal if it is demonstrated through an alternatives analysis, that there are no practical alternatives to in-Bay disposal, and

b) A contingency volume of 250,000 cubic yards per year will be established for "emergencies"[1] or for years when sedimentation or other factors result in unanticipated material volumes.

In addition, the Regional Board established a volume target of 0.2 million cubic yards per year for the Suisun Bay Channel disposal site and restricts its use to Corps maintenance dredging. The San Francisco Bar site is used for disposal of material from the bar channel. The use of the San Francisco Bar disposal site is regulated under the Marine Protection, Research, and Sanctuaries Act.

10.4.3.4 VOLUME TARGET IMPLEMENTATION

The Regional Board will consider denial of water quality certification for any project proposing to place material at a disposal site for which the annual or monthly volume target has been exceeded. Small project proponents may apply for an exemption to monthly or annual volume targets and new work disposal in San Francisco Bay. A small project is defined as a facility or project whose design depth does not exceed -12 feet Mean Lower Low Water (MLLW). The project proponent must demonstrate:

a. That the additional burden placed upon the applicant would be inordinate relative to the beneficial uses protected;

b. That the proposed discharge is less than 50,000 cubic yards in one year and not to exceed 100,000 cubic yards over five years; and

c. The alternatives analysis indicates that there are no feasible alternatives to in-Bay disposal.

On February 1, 1993, the Corps of Engineers released a proposed policy as Public Notice 93-3, which further limited allowable monthly disposal volumes at the Alcatraz disposal site (SF-11). The Corps stated that the "existing maximum volume targets have been determined to be inadequate to maintain the site for continued dredged material disposal." The Corps' change in policy in the Public Notice reduces monthly volume limits for the Alcatraz site below what has been adopted by the Regional Board (Table 4-15). However, the Corps' policy does not address annual limits; it reserves exclusive use of the site for Corps-maintained projects if deemed necessary; and it allows other dredgers to dispose of material at the San Pablo Bay site (SF-10),

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1 Dredging emergency is a situation that poses an immediate danger to life, health, property, or essential public service and that demands action by the Board more quickly than the Board's normal permit procedures would allow.

when and if the Alcatraz site has reached capacity. Of course, the Corps may change its policy independently of the Regional Board and other agencies.

10.4.3.5 USE OF TESTING GUIDELINES

In February of 1998, the Corps and U.S. EPA published "Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual, Inland Testing Manual" (ITM). The ITM provides comprehensive guidance to dredging applicants on sampling and testing of sediment proposed for disposal in waters of the Unites States, pursuant to Section 404 of the Clean Water Act. Disposal at the in-Bay disposal sites is subject to this guidance. The ITM outlines a tiered approach to sediment testing, similar to the existing Ocean Disposal Testing Manual, or "Green Book," which was written by the federal government for ocean disposal (pursuant to MPRSA). The DMMO, through USACE Public Notice 99-3, "Proposed Guidelines for Implementing the Inland Testing Manual within the USACE San Francisco District," has issued further guidance, detailing how the ITM is implemented locally. The Regional Board's Executive Officer will require evaluation of sediments proposed for in-Bay disposal according to Public Notice 99-3, or subsequent guidance, which is incorporated by reference into this plan, before issuing authorizations for such disposal. The Executive Officer may require additional data collection beyond the procedures outlined in the ITM, on a case-by-case basis.

The ITM was intended to only address testing of material for aquatic disposal and does not provide a protocol for upland disposal. Regional Board staff have developed a guidance document, "Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines," to assist project planners with developing testing procedures for beneficial reuse projects, including wetland restoration, levee maintenance, and construction fill. The guidance document also provides general sediment screening guidelines for these uses. However, disposal of dredged material for beneficial reuse will be subject to site-specific testing requirements and "acceptance criteria" provided by the Regional Board.

The Regional Board is working in cooperation with other LTMS agencies to develop a regional implementation manual that will detail testing requirements for all three disposal environments. The Executive Officer, following consultation with other agencies, will periodically review and update all testing procedures.

10.4.3.6 APPLICABILITY OF WASTE DISCHARGE REQUIREMENTS

The Regional Board will consider issuing waste discharge requirements for individual dredging projects unless the Executive Officer has waived such requirements in accordance with Resolution No. 83-3, which is incorporated by reference into this plan (see Chapter 5). In the case that mandatory allocation is required to continue progress toward the goal of 1 million cubic yards per year of in-Bay disposal the Board will consider the implementation of general waste discharge requirements for each category of dredgers.

10.4.3.7 DREDGING WINDOWS

The Regional Board will restrict dredging or dredge disposal activities during certain periods ("windows") in order to protect the beneficial uses of San Francisco Bay. These beneficial uses include water contact recreation; ocean, commercial, and sport fishing; marine habitat; fish migration; fish spawning; shellfish harvesting; and estuarine habitat. These restrictions may include, but are not limited to those specified by the United States Department and Fish and Wildlife in their review of the LTMS programmatic EIR/EIS under Section 7 of the Endangered Species Act.

10.4.3.8 IMPACTS AT DREDGE SITE

The Regional Board may require additional documentation and inspections during dredging activities in order to ensure that dredgers minimize impacts at the dredging location. Water quality certifications or waste discharge requirements may contain additional conditions to address barge overflow and other impacts at the dredging site. Permit conditions may include:

- Special reporting procedures for the hydraulic pumping of dredged material into transport scows prior to disposal (marina slip applications);

- Evidence of compliance with the conditions described in 7. Above

- Time limit on the overflow from hopper-type hydraulic dredges in order to obtain an economical load; or

- Precautions to minimize overflow and spillage from the dredging vessel when en-route to the authorized disposal site. (Appreciable loss during transit shall be considered unauthorized disposal, or "short dumping," and such occurrences are subject to enforcement by the Regional Board or other applicable state or federal agencies.)

10.4.3.9 POLICY ON LAND AND OCEAN DISPOSAL

The Regional Board shall continue to encourage land and ocean disposal alternatives whenever practical. Regional Board staff have determined that there should be a high priority placed on disposing of dredged sandy material upland. At a minimum, incentives should be developed to limit disposal of any such material with a market value to upland uses. Staff may condition certifications so as to encourage upland reuse of high value sediments. Staff will also continue to work with staff from the Central Valley Regional Water Quality Control Board to provide appropriate options for material use in levee maintenance in the delta or for use on delta islands, as appropriate.

10.4.3.10 POLICY ON DREDGED MATERIAL

Dredging and dredged material disposal should be conducted in an environmentally and economically sound manner. Dredgers should reduce disposal in the Bay over time to achieve the LTMS goal of limiting in-Bay disposal volumes to approximately one million cubic yards, or

less, per year. The LTMS agencies should implement a system of disposal allotments to individual dredgers to achieve the LTMS goal only if voluntary efforts are not effective in reaching the LTMS goal.

10.4.4 DISPOSAL PERMIT COORDINATION

The Regional Board will implement these measures through its issuance of waste discharge requirements, water quality certification under Section 401 of the Clean Water Act, or other orders. In addition, the Regional Board may require pre- and post-dredge surveys to determine disposal volumes and compliance with permit conditions. In order to better manage data and reduce paper files, Regional Board staff may request, but not require, that applicants submit testing and other project data in a specific electronic format. Regional Board staff have been participating in a coordinated permitting process for over three years that includes representatives of the LTMS agencies meeting periodically to consider permit applications that have been received. While each agency retains its separate authority the agency representatives strive to provide clear and coordinated guidance to applicants and to reach a consensus on a recommended action by the agencies.

10.5 WETLAND RESTORATION USING DREDGED MATERIAL

While the Regional Board remains concerned about the impacts of both polluted and clean sediments on the San Francisco Estuary, much of the sediment disposed of in the region is not polluted and could be used in beneficial ways (termed "reuse"). One of these uses involves the restoration of tidal marshes in areas that were once part of the Bay. These areas, known as diked historic baylands, were once open to the tides and were thriving salt marsh and mudflat ecosystems (discussed further under the "Wetlands Protection and Management" section). Decades of land "reclamation," first initiated in the 1800s, resulted in diked agricultural lands, the land surface of which has subsided for a variety of reasons.

In order to foster growth of marsh vegetation and proper slough channel formation, the new marsh must be built near mean high tide. In many cases it will be beneficial to place a layer of sediment across the site to raise the elevation of the land surface to a point near the mean tide line. LTMS studies have examined the environmental, engineering, and economic considerations that are involved in restoring certain sites. The studies commissioned by LTMS have shown that, given current laws and policies, placement of dredged sediment at wetland restoration projects may cost more than traditional in-bay disposal, but less than ocean disposal.

10.5.1 Sonoma Baylands

One example of this concept is the Sonoma Baylands Wetlands Demonstration Project. The Sonoma Baylands property, which was formerly used for hay production, was acquired by the Sonoma Land Trust for preservation as undeveloped open space. The Sonoma Baylands project was managed by the State Coastal Conservancy, which facilitated a partnership between the Corps and the Port of Oakland. Federal legislation was necessary to allow the Corps to direct the construction of the project. The Corps began filling the site with dredged sediment in the fall, 1995, with completion expected in late 1996. The 322-acre Sonoma Baylands site will require

some two-and-a-half million cubic yards of sediment prior to contact with tidal waters. The Regional Board has issued a permit for the construction of Sonoma Baylands, regulating the placement of dredged sediment and runoff water from the site. Tidal marsh vegetation is expected to be established within five years of construction.

10.5.2 Montezuma Wetlands Restoration Project

The Montezuma Wetlands Restoration Project is planned on an even larger scale. The Montezuma project site is located on the northern boundary of Suisun Bay at Collinsville. The site, which is adjacent to the Suisun Marsh reserve, is currently used for sheep ranching and commercial pheasant hunting. The Montezuma project involves restoration of approximately 1,800 acres of diked historic baylands to tidal action. Like the Sonoma Baylands site, dredged sediment would be placed at Montezuma in order to account for the heavy subsidence that has occurred at the site. In some areas, up to seven feet of sediment would be necessary to bring the site to a proper elevation for wetland creation. Because the Montezuma site has subsided so much, the quantity of material that potentially will be placed there is in the range of 20 million cubic yards. The Montezuma project is currently undergoing CEQA review.

10.5.3 Hamilton Wetlands Restoration Project

Initial studies have been completed for approximately 700 acres of wetland restoration at the site of the former Hamilton Army Airfield. CEQA review for this project has been completed. The final scope and configuration of the project is not complete and the acreage may be increased through additional land acquisition.

10.5.4 Delta Island Levee Repair and Maintenance

Winter Island, located in the western Delta, near Pittsburg, is operated as a duck club by the local Reclamation District. In 1998, the Reclamation District, in need of material to repair levees, partnered with the Corps of Engineers, and accepted over 200,000 cubic yards of sandy dredged material from the Corps' dredging of the federal Suisun Bay Channel. In 1999, an additional 225,000 cubic yards from the Suisun Bay Channel project was placed on the site, along with approximately 30,000 cubic yards of finer-grained material from the Port of San Francisco. The Reclamation District estimates that they will have a long-term need for fine-grained dredged material, of about 100,000 cubic yards per year.

Other Delta islands are also in need of material for levee repair. For example, the Corps is currently exploring the possibility of taking material from the Suisun Bay Channel to Sherman Island.

10.6 REGIONAL BOARD POLICIES ON DREDGING AND DREDGED SEDIMENT DISPOSAL

The overall policy for dredging and disposal of dredged sediment will be as specified in the LTMS Management Plan, as completed by the joint LTMS agencies. This includes a reduction in in-bay disposal volumes and an increased emphasis on beneficial reuse of dredged material.

Beneficial use is targeted on upland use in wetland restoration projects or levee maintenance and repair. Additional volume is available at the deep ocean disposal site designated by USEPA in 1998. The goal is to reduce in-bay disposal volumes to approximately 20 percent of recent historical volume, which is about 1 million cubic yards per year. General detail as to how this will proceed is as follows:

10.6.1 Need for Regional and Local Monitoring

Specific monitoring requirements will be fulfilled through two programs, first participation in the Regional Monitoring Program (RMP) which monitors the general health of the Bay and provides specific technical studies that inform policy decisions on required sediment testing (see below) and specific monitoring requirements at the designated disposal sites.

10.6.2 Material Disposal Restriction

Materials disposed of at approved aquatic dredged material disposal sites shall be restricted to dredged sediment. Disposal of rock, timber, general refuse, and other materials shall be prohibited. Additional specific requirements, regarding material type and dredging and disposal mechanism may be implemented as required based on ongoing site monitoring and adaptive management.

10.6.3 Volume Targets

Volume targets for each disposal site were developed based on understandings of sediment dynamics and historical information regarding disposal volumes. An examination of disposal patterns at all aquatic disposal sites in San Francisco Bay revealed that the Carquinez Straits area may be influenced by wet weather events.

Volume targets will be reduced to match recent volumes. These allowable volumes will be further reduced to trend toward the goal of 1 million cubic yards of allowable disposal volume at the approved in-bay disposal sites. A voluntary program will be instituted with the majority of maintenance material from COE projects being used in wetland restoration projects. Should this voluntary program fail to provide progress toward the goal, as measured by an annual review of yearly volumes, a mandatory allocation program will be instituted. Mandatory allocation will be reviewed by the Board The mandatory allocation program will be instituted through the issuance of general Waste Discharge Requirements for each class of dredging project.

In addition, the Regional Board established a volume target of 0.2 million cubic yards per year for the Suisun Bay Channel disposal site and restricts its use to Corps maintenance dredging. The San Francisco Bar site is used for disposal of material from the bar channel. The use of the San Francisco Bar disposal site is regulated under the Marine Protection, Research, and Sanctuaries Act.

10.6.4 Volume Target Implementation

The Regional Board will consider denial of water quality certification for any project proposing to place material at a disposal site for which the annual or monthly volume target has been exceeded. Small project proponents may apply for an exemption to monthly or annual volume targets and new work disposal in San Francisco Bay. A small project is defined as a facility or project whose design depth does not exceed -12 feet Mean Lower Low Water (MLLW). The project proponent must demonstrate:

a. That the additional burden placed upon the applicant would be inordinate relative to the beneficial uses protected;

b. That the proposed discharge is less than 20,000 cubic yards in one year and not to exceed 50,000 cubic yards over five years; and

c. The alternatives analysis indicates that there are no feasible alternatives to in-Bay disposal.

On February 1, 1993, the Corps of Engineers released a proposed policy as Public Notice 93-3, which further limited allowable monthly disposal volumes at the Alcatraz disposal site (SF-11). The Corps stated that the "existing maximum volume targets have been determined to be inadequate to maintain the site for continued dredged material disposal." The Corps' change in policy in the Public Notice reduces monthly volume limits for the Alcatraz site below what has been adopted by the Regional Board (Table 4-15). However, the Corps' policy does not address annual limits; it reserves exclusive use of the site for Corps-maintained projects if deemed necessary; and it allows other dredgers to dispose of material at the San Pablo Bay site (SF-10), when and if the Alcatraz site has reached capacity. Of course, the Corps may change its policy independently of the Regional Board and other agencies.

10.6.5 Use of Testing Guidelines

(This section will be updated to reflect the current status of testing guidance, both the revised COE PN and the ITM, if appropriate. Additional language specific to the DMMO and decisions regarding testing will replace the existing language) The Regional Board's Executive Officer will continue to require technical data according to Public Notice 93-2, "Testing Guidelines for Dredged Material Disposal at San Francisco Bay Sites," which is incorporated by reference into this plan. In June of 1994, the Corps and U.S. EPA published the draft "Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. (Draft), Inland Testing Manual (ITM)." The ITM is intended to provide comprehensive guidance to dredging applicants on sampling and testing of sediment. The ITM outlines a tiered approach to sediment testing, similar to the existing Ocean Disposal Testing Manual, or "Green Book," which was written by the federal government for ocean disposal (pursuant to MPRSA).

The Regional Board is working in cooperation with other LTMS agencies to develop a regional implementation manual that will detail how the ITM will be implemented in the San Francisco Bay Area. The ITM was intended to only address testing of material for aquatic disposal and does not provide a protocol for upland disposal. Disposal of dredged material in other

environments for beneficial reuse, e.g., wetland restoration, landfill daily cover, and levee bolstering, will be subject to site-specific guidance provided by the Regional Board. The Executive Officer, following consultation with other agencies, will periodically review and update all testing procedures. The Executive Officer may require additional data collection beyond the tiered-testing procedures on a case-by-case basis.

10.6.6 Applicability of Waste Discharge Requirements

The Regional Board will consider issuing waste discharge requirements for individual dredging projects unless the Executive Officer has waived such requirements in accordance with Resolution No. 83-3, which is incorporated by reference into this plan (see Chapter 5).

10.6.7 Dredging Windows

The Regional Board will restrict dredging or dredge disposal activities during certain periods ("windows") in order to protect the beneficial uses of San Francisco Bay. These beneficial uses include water contact recreation; ocean, commercial, and sport fishing; marine habitat; fish migration; fish spawning; shellfish harvesting; and estuarine habitat. These restrictions may include, but are not limited to those specified by the United States Department and Fish and Wildlife in their review of the LTMS programmatic EIR/EIS under Section 7 of the Endangered Species Act.

10.6.8 Impacts at Dredge Site

The Regional Board may require additional documentation and inspections during dredging activities in order to ensure that dredgers minimize impacts at the dredging location. Water quality certifications or waste discharge requirements may contain additional conditions to address barge overflow and other impacts at the dredging site. Permit conditions may include:

- Special reporting procedures for the hydraulic pumping of dredged material into transport scows prior to disposal (marina slip applications).

- Evidence of compliance with the conditions described in 10.6 above.

- Time limit on the overflow from hopper-type hydraulic dredges in order to obtain an economical load.

- Precautions to minimize overflow and spillage from the dredging vessel when en-route to the authorized disposal site. (Appreciable loss during transit shall be considered unauthorized disposal, or "short dumping," and such occurrences are subject to enforcement by the Regional Board or other applicable state or federal agencies.)

10.6.9 Policy on Land and Ocean Disposal

The Regional Board shall continue to encourage land and ocean disposal alternatives whenever practical. Regional Board staff have determined that there should be a high priority placed on

disposing of dredged sandy material upland. At a minimum, incentives should be developed to limit disposal of any such material with a market value to upland uses. Staff may condition certifications so as to encourage upland reuse of high value sediments. Staff will also continue to work with staff from the Central Valley Regional Water Quality Control Board to provide appropriate options for material use in levee maintenance in the delta or for use on delta islands, as appropriate.

10.6.10 Policy on Dredged Material

Then it seems that one of the new policies should be that the RB "adopts" these windows, and will include a permit condition to that effect in all future permits. We are putting such a condition in the Management Plan list of "Standard Permit Conditions" that all the agencies will use, where appropriate.

10.7 DISPOSAL PERMIT COORDINATION

The Regional Board will implement these measures through its issuance of waste discharge requirements, water quality certification under Section 401 of the Clean Water Act, or other orders. In addition, the Regional Board may require pre- and post-dredge surveys to determine disposal volumes and compliance with permit conditions. In order to better manage data and reduce paper files, Regional Board staff may request, but not require, that applicants submit testing and other project data in a specific electronic format. Regional Board staff have been participating in a coordinated permitting process for over three years that includes representatives of the LTMS agencies meeting periodically to consider permit applications that have been received. While each agency retains its separate authority the agency representatives strive to provide clear and coordinated guidance to applicants and to reach a consensus on a recommended action by the agencies.